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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PEARNE & GORDON LLP
1801 EAST 9TH STREET
SUITE 1200
CLEVELAND, OH 44114-3108

EXAMINER

BEHNCKE, CHRISTINE M

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/652,257

Applicant(s)

ADACHI, SHINYA

Examiner

Christine M. Behncke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17, 29-32 and 40-43 is/are allowed.
- 6) ☒ Claim(s) 18-28, 33-39 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the Amendment and Remarks filed 11 September 2006, in which claims 1-44 were presented for examination.

Terminal Disclaimer

2. The terminal disclaimer filed on 11 September 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,662,101 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

3. Applicant's arguments with respect to claim 18-28, 33-39, and 44 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18-28, 33, 35-39 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al., US 6,542,816.

5. **(Claim 18)** Ito et al. discloses a method for identifying position of a target road section on a digital map, said method comprising the steps of: at a transmitting side

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having a first digital map (center device, database 153 comprising route and map information, Figure 1); creating position information of the target road section on a first digital map, wherein said position information includes coordinate information of nodes selected from the target road section (column 11, lines 6-34, Figures 6A, 8); sending said position information of the target road section (S9 of Figure 8); at a receiving side having a second digital map (vehicle navigation apparatus 100, data storage 103 and display 106, column 10, lines 27-32), receiving said position information of the target road section (S2 of Figure 7); calculating a path connecting said selected nodes on the second digital map based on said coordinate information (column 7, lines 9-20, column 17, lines 16-57, figures 14-18); and identifying position of said target road section on the second digital map based on the calculated path (matching operation, column 12, lines 21-26).

6. **(Claim 19)** Ito et al. further discloses wherein, the step of calculating the path between the selected nodes, and receiving side calculates the shortest path between the selected nodes (column 11, lines 21-24, column 15, lines 19-49).

7. **(Claim 20)** Ito et al. further discloses wherein said nodes are intermittently selected from the target road (figures 10 and 11).

8. **(Claim 21)** Ito et al. discloses a method for identifying position of a target road section on a digital map, said method comprising the steps of: at a transmitting side having a first digital map (center device, database 153 comprising route and map information, Figure 1); creating position information of the target road section on a first digital map, wherein said position information includes nodes intermittently selected

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from said target road section and representing said target road section, coordinate information of the selected nodes (column 11, lines 6-34, Figures 6A, 8, 10 and 11), and supplementary information (figures 5, 6A and B); sending said position information of said target road section (S9 of Figure 8); at a receiving said having a second digital map (vehicle navigation apparatus 100, data storage 103 and display 106, column 10, lines 27-32); receiving said position information of said target road section (S2 of Figure 7); calculating a path connecting the selected nodes on a second digital map with referring to at least the supplementary information (column 7, lines 9-20, column 17, lines 16-57, figures 14-18 and column 18, lines 55-67); and identifying position of said target road section on the second digital map based on said calculated path (matching operation, column 12, lines 21-26).

9. **(Claim 22)** Ito et al. further discloses wherein said position information includes a node on an intersection (figures 3 and 4, Column 7, lines 43-58).

10. **(Claim 23)** Ito et al. further discloses wherein said position information includes a node on any points between intersections (figures 5, 10, and 11, Column 11, lines 45-67).

11. **(Claim 24)** Ito et al. further discloses wherein said position information includes a node in the middle of distance between intersections or in the vicinity of the middle of distance between intersections (figures 10 and 11).

12. **(Claim 25)** Ito et al. further discloses wherein said supplementary information indicates attribute of the selected nodes (figures 5, 6A and B).

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13. **(Claim 26)** Ito et al. further discloses wherein said supplementary information indicates attribute of a path between said selected nodes (figures 5, 6A and B, column 18, lines 55-67).

14. **(Claim 27)** Ito et al. further discloses wherein said attribute of nodes indicates any one of a road type, an intercept azimuth, a crossing link angle, and a road name at each node (figures 6A and B).

15. **(Claim 28)** Ito et al. further discloses wherein said attribute of path indicates any one of a length and a road type, of the path (Column 10, lines 14-32).

16. **(Claim 33)** Ito et al. discloses an apparatus for providing position information indicating a target road section on a first digital map to a receiving side having a second digital map so that the receiving side can identify the target road section on the second digital map, said apparatus comprising: means for identifying a target road section on a digital map (route search program within system control section 152, column 11, lines 13-34); means for intermittently selecting node groups from points arranged on the target road section (figures 10 and 11); means for obtaining coordinate information of the selected node groups (figure 10, column 11, lines 45-48); means for creating position information from the obtained coordinate information (Column 11, line 49-67); and means for transmitting the position information (communication unit 151, S9 of Figure 8).

17. **(Claim 35)** Ito et al. discloses an apparatus for identifying position of a target road section on a digital map at a receiving side based on position information on a digital map at a transmitting side (vehicle navigation apparatus 100, S2 of Figure 7),

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said apparatus comprising: means for determining position of nodes representing the target road section on the digital map at the receiving side based on the position information on the digital map at the transmitting side (column 12, lines 1-26); means for calculating a path connecting the nodes (column 7, lines 9-20, column 17, lines 16-57, figures 14-18 and column 18, lines 55-67); means for identifying position of the road section on a digital map at a receiving side (matching operation, column 12, lines 21-26); means for reproducing the road section on a digital map at a receiving side (figure 1, arithmetic processing unit 101 and display unit 106).

18. **(Claims 36 and 37)** Ito et al. discloses an apparatus for identifying position of a target road section represented by position information (S2 of figure 7), said apparatus comprising: a digital map (data memory 103, map information memory 1031); means for determining position of nodes representing the target road section based on the position information (column 12, lines 1-26); means for calculating a path connecting the nodes (column 7, lines 9-20, column 17, lines 16-57, figures 14-18 and column 18, lines 55-67); means for identifying position of the road section (matching operation, column 12, lines 21-26); and means for reproducing the road section (figure 1, arithmetic processing unit 101 and display unit 106); wherein said position identification means identifies the position of the target road section based on the coordinate information of at least two of the nodes included in the position information (figures 12 and 13, Column 12, lines 1-26).

19. **(Claim 38)** Ito et al. discloses a program product for creating and transmitting position information, said program product comprising a computer readable medium

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including therein a computer readable program code, said computer readable program code comprising: program code means for creating position information of a target road section on a first digital map (column 11, lines 6-34 and figure 8), wherein said position information includes node groups intermittently selected from points of the target road section and representing the target road section (figures 10 and 11); and program code means for transmitting said position information to a receiving side having a second digital map (Figures 7 and 8, column 11, lines 21-34).

20. **(Claim 39)** Ito et al. discloses a program product for receiving position information and identifying a position of a target road section represented by the position information, said program product comprising a computer readable medium including therein a computer readable program code, said computer readable program code comprising: program code means for receiving the position information including coordinate information of nodes selected from points arranged on the object on a first digital map (column 10, lines 27-32, column 11, lines 38-67, Figure 7); program means for calculating a path connecting the nodes (column 7, lines 9-20, column 17, lines 16-57, figures 14-18 and column 18, lines 55-67); program code means for identifying position of the object on a second digital map based on the coordinate information and the calculated path (matching operation, column 12, lines 21-26).

21. **(Claim 44)** Ito et al. discloses a method for identifying a road section on a digital map on a receiving side with reference to location information on a digital map at a transmitting side (figures 7 and 8), the method comprising the steps of: identifying plural points on the digital map at the receiving side with reference to the location information

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on the digital map at the transmitting side (column 10, lines 14-32); calculating a path connecting the plural points on the digital map at the receiving side (column 7, lines 9-20, column 17, lines 16-57, figures 14-18 and column 18, lines 55-67); identifying the road section on the digital map at the receiving side based on the path (matching operation, column 12, lines 21-26).

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al in view of Ito et al., US 6,249,740 (referred to as Ito '740).

Ito et al. discloses an apparatus for providing position information indicating a target road section on a first digital map to a receiving side having a second digital map so that the receiving side can identify the target road section on the second digital map (vehicle navigation apparatus 100, S2 of Figure 7), said apparatus comprising: means for identifying a target road section on a digital map (recommended or searched route comprised of road links, figures 8 and 9); means for selecting a predetermined section from the target road section (column 10, lines 3-32); Ito et al. further discloses selecting nodes and obtaining coordinate information of the selected nodes (route search program within system control section 152, column 11, lines 13-34, figures 10 and 11); means for obtaining coordinate information of the selected node groups (figure 10,

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column 11, lines 45-48); means for creating position information from the obtained coordinate information (Column 11, line 49-67); and means for transmitting the position information (communication unit 151, S9 of Figure 8). Ito et al. does not disclose intermittently selecting nodes in a manner that the nodes are selected more thickly in a predetermined section than another section. However, Ito '740 teaches a communications navigation system wherein routing data is transmitted and received between a navigation base apparatus and a vehicle navigation apparatus, including means for identifying a target road section on a digital map (recommended or searched route, figure 4), selecting a predetermined section from the target road section (course-change section of the recommended route, figure 4), and intermittently selecting nodes from points arranged on the target road section in such manner that nodes are selected more thickly in the predetermined section than the other section of the target road section (Column 12, lines 33-41, figures 4, 6 and 7D, Column 15, lines 7-22). It would have been obvious to one of ordinary skill in the art to combine the apparatus of Ito with the teachings of Ito '740 because, as Ito '740 suggests selecting more nodes around a change-course point allows the navigation apparatus to determine the angle between an entrance road and an exit road, thereby clearly determining and then displaying if the user makes a turn, gentle curve at a fork, or goes straight at a course-change point (column 12, lines 7-23).

Allowable Subject Matter

23. **Claims 1-17, 29-32 and 40-43** are at present considered allowable

Conclusion


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24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine M. Behncke whose telephone number is (571) 272-8103. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMB


THOMAS BLACK
SUPERVISORY PATENT EXAMINER